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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

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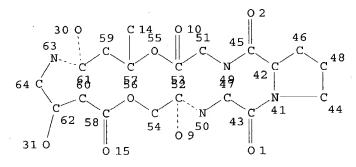
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FILE COVERS 1907 - 21 Apr 2004 VOL 140 ISS 17 FILE LAST UPDATED: 20 Apr 2004 (20040420/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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STR

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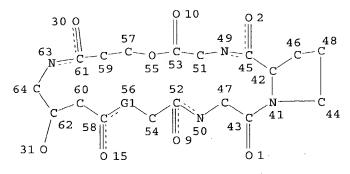
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STEREO ATTRIBUTES: NONE

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L56 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L55

L57 STR



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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

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2 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 L61

10 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 OR L61 L62

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L62 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:898771 HCAPLUS

DOCUMENT NUMBER:

138:86871

TITLE: AUTHOR(S): Chemical defense in ascidians of the Didemnidae Family Joullie, Madeleine M.; Leonard, Michael S.; Portonovo,

Padma; Liang, Bo; Ding, Xiaobin; La Clair, James J. Department of Chemistry, University of Pennsylvania,

CORPORATE SOURCE:

Philadelphia, PA, 19104-6323, USA

SOURCE:

Bioconjugate Chemistry (2003), 14(1), 30-37

CODEN: BCCHES; ISSN: 1043-1802

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal English

LANGUAGE:

Fluorescent analogs (DB1 and TA1) of the secondary metabolites didemnin B (DB) and tamandarin A (TA) were synthesized to investigate the potential chemical defense mechanisms of tunicates in the family Didemnidae. These compds. were found to alter predator-prey relations. Five species of freshwater fish and one marine fish, the damselfish Amphiprion ocellaris, were acclimated to a diet of mosquito larvae. Fish showed an immediate, neg. reaction to mosquito larvae treated with ≥5 ng of DB1 or TA1, with consumption of larvae resulting in regurgitation. Both freshwater and marine fish learned to avoid tainted prey by associating species of larvae with "distaste". Distaste for a given organism also arose when depsipeptides DB1 or TA1 were transferred to the fish from the surrounding medium. Fluorescence microscopy in fish indicated that a similar processing and localization followed ingestion and absorption of DB1 or TA1. Fluorescent labeling of DB or TA provided an ideal tool to conduct short-term studies of predator-prey relationships between fish and marine invertebrate larvae.

250211-78-0, Tamandarin A IT

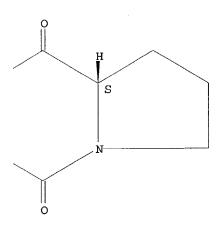
RL: BSU (Biological study, unclassified); BIOL (Biological study) (chemical defense mechanisms of tunicates)

250211-78-0 HCAPLUS RN

Tamandarin A (9CI) (CA INDEX NAME) CN

Absolute stereochemistry. Rotation (-).

PAGE 1-B



IT 485389-87-5

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(tamandarin A fluorescent analog; chemical defense mechanisms of tunicates)

RN 485389-87-5 HCAPLUS

CN L-Tyrosine, N-[[7-(dimethylamino)-2-oxo-2H-1-benzopyran-4-yl]acetyl]glycyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5 $\label{lem:lem:lemoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8+3)-lactone (9CI) (CA INDEX NAME)} \\$

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

37

REFERENCE COUNT:

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Searched by P. Ruppel

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L62 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
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ACCESSION NUMBER:

2002:31485 HCAPLUS 136:86058

TITLE:

Preparation of aplidine analogs as new antitumor

agents

INVENTOR(S):

Rodriguez, Ignacio; Polanco, Concepcion; Cuevas,

Felix; Mandez, Paloma; Cuevas, Carmen; Gallego, Pilar;

Munt, Simon; Manzanares, Ignacio

PATENT ASSIGNEE(S):

SOURCE:

Pharma Mar, S.A., Spain PCT Int. Appl., 241 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.				KIND DATE			APPLICATION NO.						DATE				
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	W:										•				•	•	•	
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		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	KZ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	ΜA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	
		RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	
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	RW:			•		MW,										CH,	CY,	
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	
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EP	EP 1294747		A2 20030326				-	EP 2001-945484 2001070										
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		IE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR		·	•	•	•	•	
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JP	JP 2004502702			T2 20040129					JP 2002-507848					20010702				
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PRIORITY APPLN. INFO				. :				GB 2000-16148				Α	2000	0630				
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								Ţ	WO 2	001-	GB29	01	W	2001	0702			
WO 2001-GB2901 W 20010702 OTHER SOURCE(S): CASREACT 136:86058; MARPAT 136:86058 GI																		

AB Aplidine and its analogs I [X = CH2, O, S, or NR1, where R1 = H, (un)substituted alkyl, alkenyl, aryl, aralkyl; Y = (COR2)nCO, where n = 0 or 1, R2 = (un)substituted alkyl, alkenyl, aryl, aralkyl; Z = H, or R3CONH, R3CO, where R3 = (un)substituted alkyl, alkenyl, aryl, aralkyl; A = amino acyl, R3SO2, or R3CO, where R3 = (un)substituted alkyl, aryl, aralkyl] were prepared as antitumor agents. Thus, [Val]3[Isobutyryl]8-didemnin A was prepared by multistep procedure starting from reaction of H-Leu-Pro-OCH2Ph with Boc-Val-OH (Boc = tert-butoxycarbonyl) and via coupling of Ist-Val-Leu-Pro-OBn (Ist = isostatine) intermediate with O-(Cbz-N,O-dimethyl-Tyr)-N-tert-Boc-Thr phenacyl ester (Cbz = benzyloxycarbonyl), followed by macrocyclization and coupling with Cbz-Me-D-Leu and Pyr-Pro-OH. The prepared compound was active against human lung carcinoma and human colon carcinoma.

Ι

250211-78-0P, Tamandarin A 367507-55-9P
387823-42-9P 387823-43-0P 387823-44-1P
387823-45-2P 387823-56-5P 387823-59-8P
387823-61-2P 387823-62-3P 387823-82-7P
387823-84-9P 387823-85-0P 387823-86-1P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of aplidine analogs as antitumor agents)

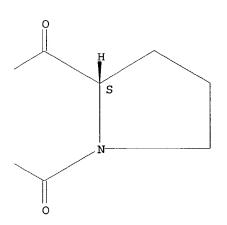
RN 250211-78-0 HCAPLUS

CN

Tamandarin A (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-B



RN 367507-55-9 HCAPLUS CN Tamandarin A, 6-L-valine- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-42-9 HCAPLUS
CN L-Tyrosine, N-methyl-N-[(phenylmethoxy)carbonyl]-D-leucyl-L-threonyl(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (7→2)-lactone (9CI)
(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 387823-43-0 HCAPLUS

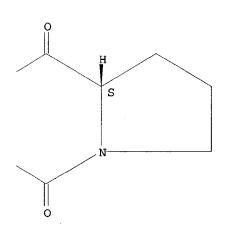
CN L-Tyrosine, N-methyl-N-[(phenylmethoxy)carbonyl]-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (7→2)-lactone (9CI) (CA INDEX NAME)

RN 387823-44-1 HCAPLUS

CN L-Tyrosine, N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, $(7\rightarrow 2)$ -lactone (9CI) (CA INDEX NAME)

RN 387823-45-2 HCAPLUS

CN L-Tyrosine, N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (7→2)-lactone (9CI) (CA INDEX NAME)



RN 387823-56-5 HCAPLUS

CN L-Tyrosine, N-[(phenylmethoxy)carbonyl]-L-norvalyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-59-8 HCAPLUS

CN L-Tyrosine, 1-[(2S)-2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-oxopropyl]-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

RN 387823-61-2 HCAPLUS

CN L-Tyrosine, 1-[(2S)-2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-oxopropyl]-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8-3)-lactone (9CI) (CA INDEX NAME)

RN 387823-62-3 HCAPLUS
CN L-Tyrosine, (2R)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (9-4)-lactone (9CI)
(CA INDEX NAME)

PAGE 1-B

RN 387823-82-7 HCAPLUS

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,0-dimethyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-84-9 HCAPLUS

CN L-Tyrosine, 1-[(1,1-dimethylethoxy)carbonyl]-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-85-0 HCAPLUS

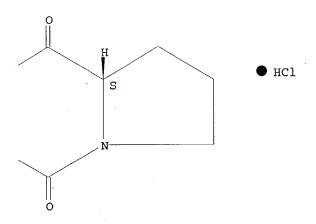
CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

PAGE 2-B

0

RN 387823-86-1 HCAPLUS

CN L-Tyrosine, L-valyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8-3)-lactone, monohydrochloride (9CI) (CA INDEX NAME)



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345969-81-5P 367507-67-3P 387823-47-4P
     387823-48-5P 387823-49-6P 387823-50-9P
     387823-52-1P 387823-53-2P 387823-58-7P
     387823-60-1P 387823-75-8P 387823-77-0P
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     387823-83-8P 387823-87-2P 387859-52-1P
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     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of aplidine analogs as antitumor agents)
     345969-81-5 HCAPLUS
RN
     L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-
CN
     (3S, 4R, 5S) -4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-
     methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI)
       (CA INDEX NAME)
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Absolute stereochemistry. Rotation (-).

PAGE 1-B

RN367507-67-3 HCAPLUS

2-9-Tamandarin A, 2-[1-(1,2-dioxopropyl)-L-proline]-6-L-valine- (9CI) (CA CNINDEX NAME)

PAGE 1-B

RN 387823-47-4 HCAPLUS

CN L-Tyrosine, N-methyl-N-(2-methyl-1-oxopropyl)-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (7→2)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-48-5 HCAPLUS

CN L-Tyrosine, N-methyl-N-(2-methyl-1-oxopropyl)-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (7->2)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-49-6 HCAPLUS

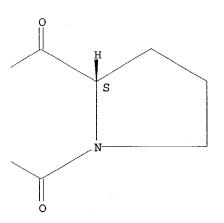
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PAGE 1-B

RN 387823-50-9 HCAPLUS

CN L-Tyrosine, N-methyl-N-(1-oxohexyl)-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, $(7\rightarrow 2)$ -lactone (9CI) (CA INDEX NAME)

PAGE 1-B



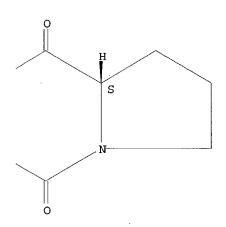
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(CA INDEX NAME)

PAGE 1-B

RN 387823-53-2 HCAPLUS

CN L-Tyrosine, 1-(2-methyl-1-oxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8-3)-lactone (9CI) (CA INDEX NAME)

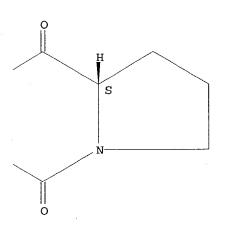
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RN 387823-58-7 HCAPLUS

CN L-Tyrosine, L-norvalyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



RN 387823-60-1 HCAPLUS
CN L-Tyrosine, 1-[(2R)-2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-oxopropyl]L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-

L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,0-dimethyl-, (8 \rightarrow 3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 387823-75-8 HCAPLUS

CN L-Tyrosine, N-[(2R)-2-[(5R)-1-[(1,1-dimethylethoxy)carbonyl]-6-oxo-1,7-diazaspiro[4.4]non-7-yl]-4-methyl-1-oxopentyl]-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 387823-77-0 HCAPLUS

CN L-Tyrosine, N-[(2R)-4-methyl-2-[(5R)-1-(2-methyl-1-oxopropyl)-6-oxo-1,7-diazaspiro[4.4]non-7-yl]-1-oxopentyl]-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6 \rightarrow 1)-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

RN 387823-79-2 HCAPLUS

CN L-Tyrosine, N-[(2R)-2-[(5R)-1-(1,2-dioxopropyl)-6-oxo-1,7-diazaspiro[4.4]non-7-yl]-4-methyl-1-oxopentyl]-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

RN

387823-80-5 HCAPLUS L-Tyrosine, N-[(2R)-4-methyl-2-[(5R)-1-(2-methyl-1-oxo-2-propenyl)-6-oxo-1,7-diazaspiro[4.4]non-7-yl]-1-oxopentyl]-L-threonyl-(3S,4R,5S)-4-amino-3-CN $\label{lem:hydroxy-5-methylheptanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6\to1)-lactone (9CI) (CA INDEX NAME)} \\$

Absolute stereochemistry.

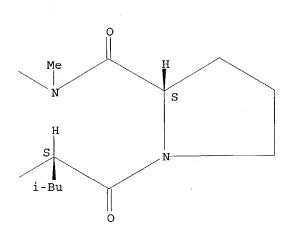
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PAGE 2-A

RN

387823-81-6 HCAPLUS L-Tyrosine, N-[(phenylmethoxy)carbonyl]-L-alanyl-L-prolyl-N-methyl-D-CNleucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, $(9\rightarrow 4)$ -lactone (9CI) (CA INDEX NAME)

PAGE 1-B

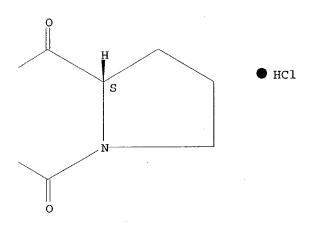


RN 387823-83-8 HCAPLUS

CN L-Tyrosine, L-alanyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (9-4)-lactone, monohydrochloride (9CI) (CA INDEX NAME)

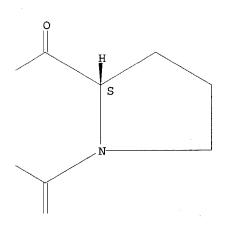
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PAGE 1-B



RN 387823-87-2 HCAPLUS
CN L-Tyrosine, N-(2-methyl-1-oxopropyl)-L-valyl-N-methyl-D-leucyl-L-threonyl(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI)
(CA INDEX NAME)

PAGE 1-B



PAGE 2-A
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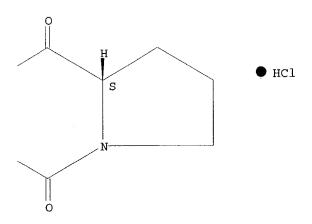
PAGE 2-B

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CN L-Tyrosine, L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone, monohydrochloride (9CI) (CA INDEX NAME)

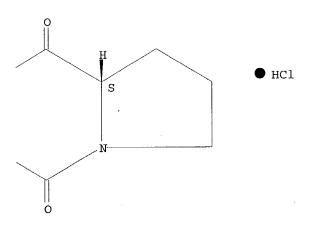
Absolute stereochemistry. Rotation (-).

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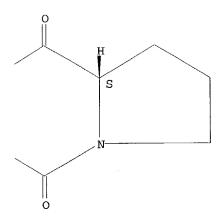
RN 291772-83-3 HCAPLUS
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(6→1)-lactone, monohydrochloride (9CI) (CA INDEX NAME)

Searched by P. Ruppel



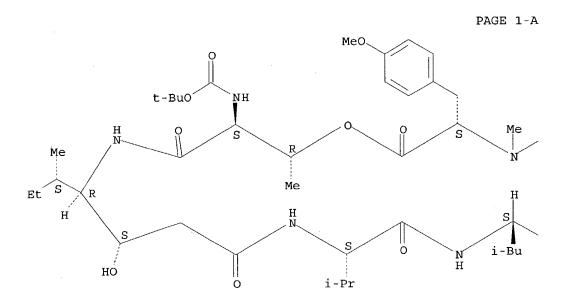
387823-38-3 HCAPLUS RN

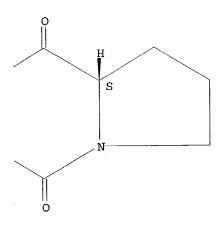
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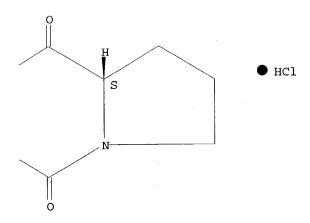
387823-39-4 HCAPLUS RN

L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6+1)-lactone (9CI) (CA INDEX NAME) CN





RN 387823-41-8 HCAPLUS
CN L-Tyrosine, L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-L-valyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone, monohydrochloride (9CI) (CA INDEX NAME)



L62 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:16567 HCAPLUS

DOCUMENT NUMBER:

137:140752

TITLE:

Part I. Total synthesis and biological investigations

of tamandarin compounds. Part II. Synthetic studies

towards the total synthesis of callipeltin A

AUTHOR(S):

Liang, Bo

CORPORATE SOURCE:

SOURCE:

Univ. of Pennsylvania, Philadelphia, PA, USA (2001) 455 pp. Avail.: UMI, Order No. DA3003653

From: Diss. Abstr. Int., B 2001, 62(2), 864

DOCUMENT TYPE:

LANGUAGE:

Dissertation

English

AB Unavailable

IT 250211-78-0P, Tamandarin A

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)

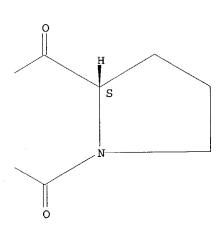
(total synthesis and biol. investigations of tamandarin compds.)

RN 250211-78-0 HCAPLUS

Tamandarin A (9CI) (CA INDEX NAME) CN

PAGE 1-A

PAGE 1-B



L62 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:762837 HCAPLUS

DOCUMENT NUMBER:

135:318713

TITLE: INVENTOR(S): Preparation of tamandarin and didemnin analogs Joullie, Madeleine M.; Liang, Bo; Ding, Xiaobin

PATENT ASSIGNEE(S):

Trustees of the University of Pennsylvania, USA

SOURCE:

PCT Int. Appl., 190 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

GΙ

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

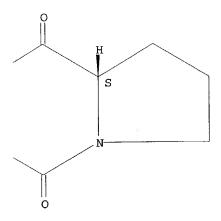
PATENT INFORMATION:

APPLICATION NO. DATE KIND DATE PATENT NO. ______ WO 2001-US11607 20010409 20011018 WO 2001076616 A1 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 2000-545848 20000407 B1 20030121 US 6509315 US 200<u>1-767080</u> 20010122 US 2001056178 A1 20011227 20030122 EP 2001-924886 20010409 EP 1276491 **A1** R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR BR 2001-9958 20010409 BR 2001009958 Ά 20030527 JP 2001-574132 20010409 **T**2 20031125 JP 2003535048 US 2000-545848 20000407 PRIORITY APPLN. INFO .: Α US 2001-767080 Α 20010122 WO 2001-US11607 W 20010409 CASREACT 135:318713; MARPAT 135:318713 OTHER SOURCE(S):

The invention relates to tamandarin and didemnin analogs I (Z = null or COCHMe, resp.; R1 = H, tert-butoxycarbonyl, leucyl, N-methylleucyl, a residue having a deoxoproline or dehydroproline residue, etc.; R2 is an isoleucine, valine, alanine, norleucine, norvaline, leucine, histidine, tryptophan, arginine or lysine side chain or a substituted benzyl group; R3 = H, Me or R2R3 is a substituted o-phenylenemethylene group; R4 is an isoleucine or valine side chain; X = O or NH; Y = H or a hydroxy-protecting group) which are useful as anticancer agents, inhibitors of protein synthesis, cell growth and tumorigenesis and as enhancers of apoptosis. (-)-Tamandarin A is not claimed but a total

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synthesis was carried out. The synthesis of a didemnin B analog in which
     R1 is 3,4-dehydro-L-prolyl-N-methyl-D-leucyl is described.
     250211-78-0P, Tamandarin a 258339-38-7P, Tamandarin B
IT
     291772-81-1P, Tamandarin M 345969-81-5P
     367507-41-3P 367507-42-4P 367507-44-6P
     367507-45-7P 367507-46-8P 367507-47-9P
     367507-48-0P 367507-49-1P 367507-50-4P
     367507-51-5P 367507-52-6P 367507-53-7P
     367507-54-8P 367507-55-9P 367507-56-0P
     367507-57-1P 367507-58-2P 367507-59-3P
     367507-60-6P 367507-61-7P 367507-62-8P
     367507-63-9P 367507-64-0P 367507-65-1P
     367507-66-2P 367507-67-3P 367939-75-1P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of tamandarin and didemnin analogs)
     250211-78-0 HCAPLUS
RN
                        (CA INDEX NAME)
     Tamandarin A (9CI)
CN
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PAGE 1-B

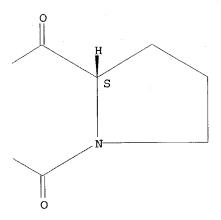


RN 258339-38-7 HCAPLUS CN Tamandarin B (9CI) (CA INDEX NAME)

RN 291772-81-1 HCAPLUS CN Didemnin M, 8-[(2S)-2-hydroxy-3-methylbutanoic acid]- (9CI) (CA INDEX NAME)

RN 345969-81-5 HCAPLUS
CN L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A



367507-41-3 HCAPLUS RN

L-Tyrosine, 5-oxo-L-prolyl-L-glutaminyl-(2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-L-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (11→6)-lactone (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

Searched by P. Ruppel

НО

RN 367507-42-4 HCAPLUS

CN L-Tyrosine, (2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-L-leucyl-L-threonyl- (3S,4R)-4-amino-3-hydroxy-5-methylhexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-A

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RN 367507-45-7 HCAPLUS

CN Tamandarin A, 3-(N-methyl-L-leucine)-, 1-[2-[3,6-bis(diethylamino)xanthylium-9-yl]benzoate] (9CI) (CA INDEX NAME)

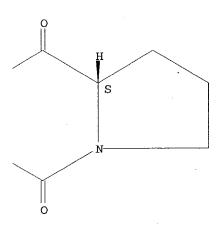
PAGE 1-A

PAGE 2-A

RN 367507-46-8 HCAPLUS

CN L-Lysine, (2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N2-methyl-, (9>4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



RN 367507-47-9 HCAPLUS

CN L-Lysine, (2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl- (3S,4R)-4-amino-3-hydroxy-5-methylhexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N2-methyl-, (9 \rightarrow 4)-lactone (9CI) (CA INDEX NAME)

Me S O O NH
$$H_2N$$
 $(CH_2)_4$
 $i-Pr$ R

Me $i-Pr$ Me
 $i-Pr$ Me
 $i-Pr$

PAGE 1-B

RN 367507-48-0 HCAPLUS

CN L-Lysine, 5-oxo-L-prolyl-L-glutaminyl-(2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N2-methyl-, (11-6)-lactone (9CI) (CA INDEX NAME)

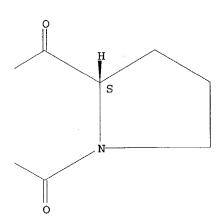
PAGE 1-B

$$H_2N$$
 $(CH_2)_4$
 Me
 N
 i_-Bu
 O

RN 367507-49-1 HCAPLUS

CN L-Phenylalanine, (2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-4-benzoyl-N-methyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



RN 367507-50-4 HCAPLUS

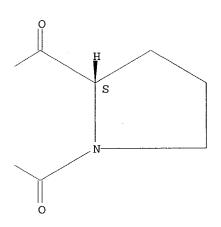
CN L-Phenylalanine, 5-oxo-L-prolyl-L-glutaminyl-(2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-4-benzoyl-N-methyl-, (11→6)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 367507-51-5 HCAPLUS

CN L-Phenylalanine, (2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R)-4-amino-3-hydroxy-5-methylhexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-4-benzoyl-N-methyl-, (9-4)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



RN 367507-52-6 HCAPLUS

CN Tamandarin A, 9-[(3S)-1,2,3,4-tetrahydro-7-methoxy-3-isoquinolinecarboxylic acid]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 367507-53-7 HCAPLUS

CN Tamandarin A, 9-[(3S)-1,2,3,4-tetrahydro-7-methoxy-3-isoquinolinecarboxylic acid]-, $(2'\rightarrow 1)$ -ester with

Searched by P. Ruppel

5-oxo-L-prolyl-L-glutamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 367507-54-8 HCAPLUS

CN Tamandarin B, 9-[(3S)-1,2,3,4-tetrahydro-7-methoxy-3-isoquinolinecarboxylic acid]- (9CI) (CA INDEX NAME)

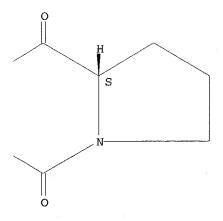
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 367507-55-9 HCAPLUS

CN Tamandarin A, 6-L-valine- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



RN 367507-56-0 HCAPLUS CN Tamandarin B, 6-L-valine- (9CI) (CA INDEX NAME)

RN 367507-57-1 HCAPLUS

CN Tamandarin A, 6-L-valine-, $(2'\rightarrow 1)$ -ester with 5-oxo-L-prolyl-L-glutamine (9CI) (CA INDEX NAME)

RN 367507-58-2 HCAPLUS

CN L-Tyrosine, 5-oxo-L-prolyl-L-leucyl-(2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-L-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (11→6)-lactone (9CI) (CA INDEX NAME)

Searched by P. Ruppel

RN 367507-59-3 HCAPLUS

CN L-Tyrosine, 5-oxo-L-prolyl-L-glutaminyl-N-methyl-L-alanyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (11→6)-lactone (9CI) (CA INDEX NAME)

RN

367507-60-6 HCAPLUS L-Tyrosine, 5-oxo-L-prolyl-L-glutaminyl-L-alanyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-CNhydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (11-6)-lactone (9CI) (CA INDEX NAME)

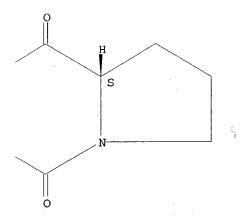
RN 367507-61-7 HCAPLUS

CN L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-L-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

Searched by P. Ruppel

RN 367507-62-8 HCAPLUS

CN L-Phenylalanine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-4-benzoyl-N-methyl-, (8→3)-lactone (9CI) (CA INDEX NAME)



RN 367507-63-9 HCAPLUS

CN 3-Isoquinolinecarboxylic acid, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxybutanoyl-L-leucyl-L-prolyl-1,2,3,4-tetrahydro-7-methoxy-, (8→3)-lactone, (3S)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 367507-64-0 HCAPLUS

CN L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-lysyl-L-prolyl-N,O-dimethyl-, (8+3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

RN 367507-65-1 HCAPLUS

CN L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R)-4-amino-3-hydroxy-5-methylhexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8+3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

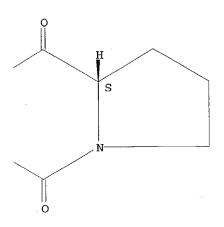
RN

367507-66-2 HCAPLUS L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-L-leucyl-L-threonyl-(3S, 4R) -4-amino-3-hydroxy-5-methylhexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8-3)-lactone (9CI) (CA INDEX

RN 367507-67-3 HCAPLUS CN 2-9-Tamandarin A, 2-[1-(1,2-dioxopropyl)-L-proline]-6-L-valine- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B



RN 367939-75-1 HCAPLUS

CN L-Tyrosine, N2-(cyclopentylcarbonyl)-L-glutaminyl-(2S)-2-hydroxypropanoyl-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (10-5)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B

IT 250039-55-5P 291772-83-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of tamandarin and didemnin analogs)

RN 250039-55-5 HCAPLUS

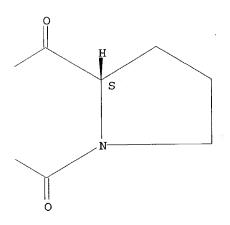
CN 4-9-Tamandarin A, N-[(1,1-dimethylethoxy)carbonyl]-5-[(3S,4R,5S)-4-amino-5-methyl-3-[[tris(1-methylethyl)silyl]oxy]heptanoic acid]- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

PAGE 1-A

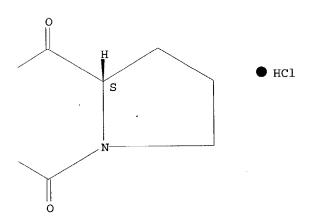
PAGE 1-B



291772-83-3 HCAPLUS RN

L-Tyrosine, L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-CN2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-B



REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:268658 HCAPLUS

DOCUMENT NUMBER:

135:61525

TITLE:

Total syntheses and biological investigations of tamandarins A and B and tamandarin A analogs Liang, Bo; Richard, David J.; Portonovo, Padma S.;

AUTHOR(S):

CORPORATE SOURCE:

Joullie, Madeleine M.
Department of Chemistry, University of Pennsylvania,

Philadelphia, PA, 19104-6323, USA

Searched by P. Ruppel

SOURCE:

Journal of the American Chemical Society (2001),

123(19), 4469-4474

CODEN: JACSAT; ISSN: 0002-7863

American Chemical Society

PUBLISHER:
DOCUMENT TYPE:

Journal English

LANGUAGE:
OTHER SOURCE(S):

CASREACT 135:61525

Tamandarins A (1) and B (2), two natural products similar in structure to didemnin B (3), were recently isolated from a Brazilian marine ascidian of the family Didemnidae. The cytotoxicity of 1 was reported to be somewhat more potent in vitro than that of 3 against various human cancer cell lines. The present account describes the first total syntheses of 1 and 2, and the syntheses of tamandarin A side chain analogs. The cytotoxicity data for these compds. show that the side chain modifications exhibit a parallel effect for both didemnins and tamandarins. This observation supports tamandarins' role as didemnins' mimic.

IT **258339-38-7P**, Tamandarin B

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

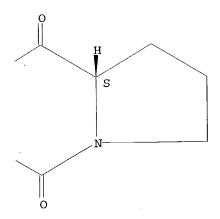
(preparation and cytotoxicity of tamandarin A, tamandarin B, tamandarin A analogs and didemnin analogs)

RN 258339-38-7 HCAPLUS

CN Tamandarin B (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



IT 291772-81-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(preparation and system); It amendarin A. tamandarin B. tamandarin B.

(preparation and cytotoxicity of tamandarin A, tamandarin B, tamandarin A analogs and didemnin analogs)

analogs and didemnin

RN 291772-81-1 HCAPLUS

CN Didemnin M, 8-[(2S)-2-hydroxy-3-methylbutanoic acid]- (9CI) (CA INDEX NAME)

Searched by P. Ruppel

345664-55-3P 345969-81-5P IT

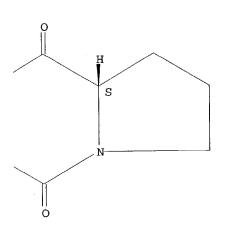
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and cytotoxicity of tamandarin A, tamandarin B, tamandarin A analogs and didemnin analogs)

345664-55-3 HCAPLUS RN

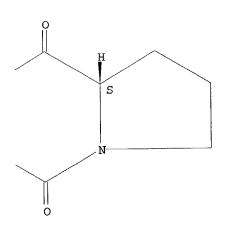
L-Tyrosine, L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-CNhydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-Lprolyl-N,O-dimethyl-, (8-3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



RN 345969-81-5 HCAPLUS
CN L-Tyrosine, 1-(1,2-dioxopropyl)-L-prolyl-N-methyl-D-leucyl-L-threonyl(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI)
(CA INDEX NAME)

PAGE 1-B



IT 250211-78-0P, Tamandarin A

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(preparation and cytotoxicity of tamandarin A, tamandarin B, tamandarin A analogs and didemnin analogs)

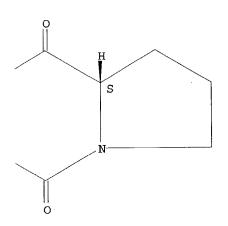
RN 250211-78-0 HCAPLUS

CN Tamandarin A (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

PAGE 1-B



IT 250039-55-5P 291772-83-3P 325687-71-6P

345664-71-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

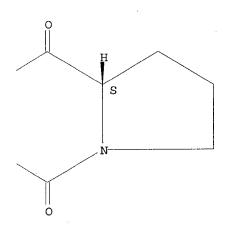
(preparation and cytotoxicity of tamandarin A, tamandarin B, tamandarin A analogs and didemnin analogs)

RN 250039-55-5 HCAPLUS

CN 4-9-Tamandarin A, N-[(1,1-dimethylethoxy)carbonyl]-5-[(3S,4R,5S)-4-amino-5-methyl-3-[[tris(1-methylethyl)silyl]oxy]heptanoic acid]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

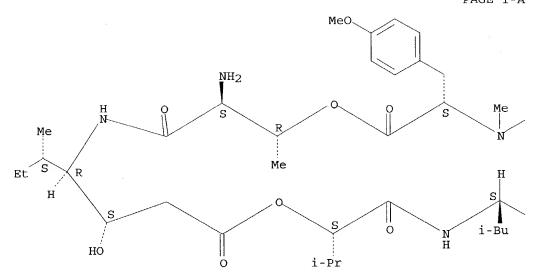
PAGE 1-B



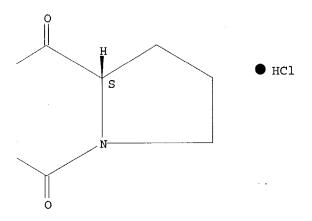
RN 291772-83-3 HCAPLUS

CN L-Tyrosine, L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-,
(6-1)-lactone, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



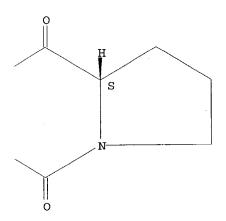
PAGE 1-B



RN 325687-71-6 HCAPLUS

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-L-threonyl-(3S,4R)-4-amino-5-methyl-3-[[tris(1-methylethyl)silyl]oxy]hexanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone (9CI) (CA INDEX NAME)

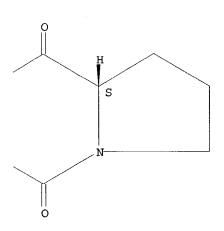
PAGE 1-B



RN 345664-71-3 HCAPLUS

CN L-Tyrosine, 1-[(phenylmethoxy)carbonyl]-L-prolyl-N-methyl-D-leucyl-L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (8→3)-lactone (9CI) (CA INDEX NAME)

PAGE 1-B



REFERENCE COUNT:

THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 2000:897488 HCAPLUS

ACCESSION NUMBER: DOCUMENT NUMBER:

134:163325

TITLE:

Total synthesis of (-)-tamandarin B

AUTHOR(S):

Joullie, M. M.; Portonovo, P.; Liang, B.; Richard, D.

Searched by P. Ruppel

CORPORATE SOURCE:

Department of Chemistry, University of Pennsylvania,

Philadelphia, PA, 19104-6323, USA

SOURCE:

Tetrahedron Letters (2000), 41(49), 9373-9376

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal English

LANGUAGE:

CASREACT 134:163325

OTHER SOURCE(S): The synthesis of tamandarin B is described. Key steps in the synthesis of the macrocycle component include a diastereoselective ketone reduction, linear precursor formation via an activated pentafluorophenyl ester, and HATU-promoted cyclization. Side-chain coupling was achieved in excellent yield with the newly developed coupling reagent DEPBT.

325687-71-6P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(total synthesis of cyclic depsipeptide tamandarin B)

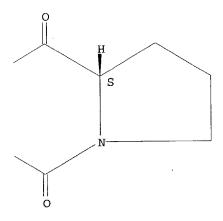
325687-71-6 HCAPLUS RN

L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-L-threonyl-(3S,4R)-4-amino-5-CNmethyl-3-[[tris(1-methylethyl)silyl]oxy]hexanoyl-(2S)-2-hydroxy-3methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1)-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A Me0 t-BuO NH Мe i-Bu i-Pr 0 (i-Pr) 3Si

PAGE 1-B

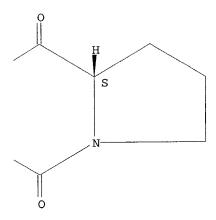


IT **258339-38-7P**, Tamandarin B

RL: SPN (Synthetic preparation); PREP (Preparation) (total synthesis of cyclic depsipeptide tamandarin B)

RN 258339-38-7 HCAPLUS

CN Tamandarin B (9CI) (CA INDEX NAME)



REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS 12 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2000:727119 HCAPLUS

DOCUMENT NUMBER:

134:36678

TITLE:

Inhibition of protein synthesis by didemnins: cell

potency and SAR

AUTHOR(S):

Ahuja, Deepika; Geiger, Adam; Ramanjulu, Joshi M.;

Vera, Matthew D.; Sir Deshpande, Bhagyashri;

Pfizenmayer, Amy; Abazeed, Mohamed; Krosky, Daniel J.; Beidler, David; Joullie, Madeleine M.; Toogood, Peter

CORPORATE SOURCE:

Willard H. Dow Laboratory Department of Chemistry, University of Michigan, Ann Arbor, MI, 48109-1055, USA

SOURCE: 4212-4218

Journal of Medicinal Chemistry (2000), 43(22),

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE: English

Synthetic and naturally occurring didemnins are potent and specific inhibitors of protein synthesis in vitro. Structure-activity anal. indicates a requirement for the intact macrocycle; however, the smaller ring size represented by the didemnin analog, tamandarin A, is equipotent to didemnin B. Replacement of the N,O-dimethyltyrosine by a N-methylphenylalanine or N-methylleucine residue is also well-tolerated. The rank order for inhibition of protein synthesis in vitro appears to be retained in MCF-7 cells, albeit at much higher potency. This increase in potency is explained for the first time by data indicating that MCF-7 cells can accumulate didemnin B up to 2-3 orders of magnitude compared to the growth medium.

250211-78-0, Tamandarin A TΤ

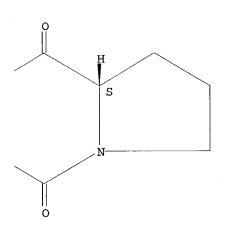
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(inhibition of protein synthesis by didemnins and cell potency and SAR) RN 250211-78-0 HCAPLUS CN Tamandarin A (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

PAGE 1-B



REFERENCE COUNT:

60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:417315 HCAPLUS ACCESSION NUMBER:

133:223009 DOCUMENT NUMBER:

Total Synthesis of [(2S)-Hiv2]Didemnin M TITLE:

Liang, Bo; Vera, Matthew D.; Joullie, Madeleine M. AUTHOR(S): Department of Chemistry, University of Pennsylvania, CORPORATE SOURCE:

Philadelphia, PA, 19104-6323, USA

Journal of Organic Chemistry (2000), 65(15), 4762-4765 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263

American Chemical Society PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE: English

CASREACT 133:223009 OTHER SOURCE(S):

The synthesis of of [(2S)-Hiv2] didemnin M (Hiv = hydroxyisovaleryl),

containing both a simplified tamandarin-type macrocycle and the more complex

side-chain of didemnin M, is reported.

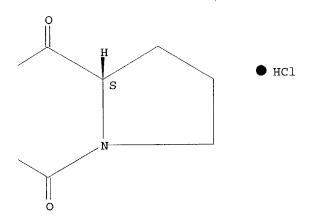
IT 291772-83-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(total synthesis of (hydroxyisovaleryl)didemnin M)

291772-83-3 HCAPLUS RN

L-Tyrosine, L-threonyl-(3S,4R,5S)-4-amino-3-hydroxy-5-methylheptanoyl-(2S)-CN2-hydroxy-3-methylbutanoyl-L-leucyl-L-prolyl-N,O-dimethyl-, (6→1) -lactone, monohydrochloride (9CI) (CA INDEX NAME)



IT 291772-81-1P, [(2S)-Hiv2] Didemnin M

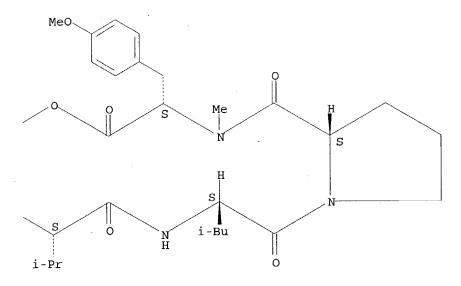
RL: SPN (Synthetic preparation); PREP (Preparation) (total synthesis of (hydroxyisovaleryl)didemnin M)

RN 291772-81-1 HCAPLUS

CN Didemnin M, 8-[(2S)-2-hydroxy-3-methylbutanoic acid]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



REFERENCE COUNT:

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS 15 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1999:816199 HCAPLUS

DOCUMENT NUMBER:

132:149193

TITLE:

AUTHOR (S):

Tamandarins A and B: new cytotoxic depsipeptides from

a Brazilian ascidian of the family Didemnidae Vervoort, Helene; Fenical, William; de Epifanio,

Rosangela

CORPORATE SOURCE:

Center for Marine Biotechnology and Biomedicine Scripps Institution of Oceanography, University of California-San Diego, La Jolla, CA, 92093-0204, USA Journal of Organic Chemistry (2000), 65(3), 782-792

SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: DOCUMENT TYPE: American Chemical Society

Journal

LANGUAGE:

English

GI

The structures of two new, naturally occurring cytotoxic depsipeptides, tamandarins A(I) and B (II), are presented. The tamandarins were isolated from an unidentified Brazilian marine ascidian of the family Didemnidae. The structures of the new cytotoxins were assigned by interpretation of FABMS data and by extensive 2D NMR analyses. The absolute configurations of the tamandarins were assigned by acid and alkaline hydrolysis to yield their corresponding amino acids, which were then analyzed as their Marfey derivs. The cytotoxicity of I was evaluated against various human cancer cell lines and shown to be slightly more potent than didemnin B. A qual. discussion of the conformation of I in solution, obtained from NMR J-value data, variable temperature expts., and NOESY/ROESY data, is included.

II

IT 250211-78-0P, Tamandarin A 258339-38-7P, Tamandarin B
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence);
PREP (Preparation)

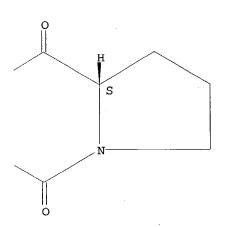
(cytotoxic depsipeptides from ascidian)

RN 250211-78-0 HCAPLUS

CN

Tamandarin A (9CI) (CA INDEX NAME)

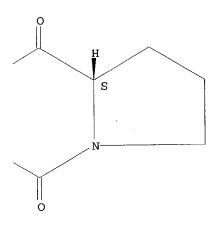
PAGE 1-B



RN 258339-38-7 HCAPLUS

CN Tamandarin B (9CI) (CA INDEX NAME)

PAGE 1-B



REFERENCE COUNT:

90 THERE ARE 90 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L62 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1999:583956 HCAPLUS

DOCUMENT NUMBER:

131:337334

TITLE:

The first total synthesis of (-)-Tamandarin ${\tt A}$

AUTHOR(S): Liang, Bo; Portonovo, Padma; Vera, Matthew D.; Xiao,

Searched by P. Ruppel

CORPORATE SOURCE:

Dong; Joullie, Madeleine M.

Department of Chemistry, University of Pennsylvania,

I

Philadelphia, PA, 19104-6323, USA

Organic Letters (1999), 1(8), 1319-1322

CODEN: ORLEF7; ISSN: 1523-7060

American Chemical Society

Journal English

LANGUAGE:

SOURCE:

PUBLISHER:

DOCUMENT TYPE:

OMe Me Me Me Me Йe OH 0 HN O NH Me 0 OH Me Me Me

AB Tamandarin A (I), a newly isolated natural product similar in structure to didemnin B, was shown to be somewhat more active in vitro than didemnin B against pancreatic carcinoma with an ED50 value 1.5 to 2 ng/mL. The first total synthesis of I is reported here. The key steps include a practical stereoselective synthesis of the α -hydroxyisovaleryl-isostatine unit, high-yielding linear precursor formation, a successful macrocyclization, and coupling of the macrocycle with the side chain to afford I.

IT 250211-78-0P, Tamandarin A

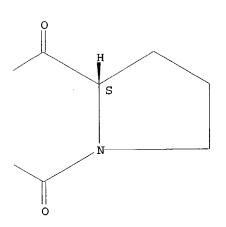
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(total synthesis of (-)-Tamandarin A, a naturally occurring anticancer cyclic depsipeptide)

RN 250211-78-0 HCAPLUS

CN Tamandarin A (9CI) (CA INDEX NAME)

PAGE 1-B



IT 250039-55-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(total synthesis of (-)-Tamandarin A, a naturally occurring anticancer cyclic depsipeptide)

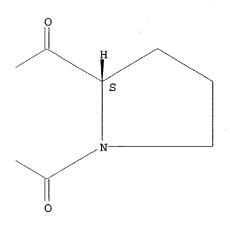
RN 250039-55-5 HCAPLUS

CN 4-9-Tamandarin A, N-[(1,1-dimethylethoxy)carbonyl]-5-[(3S,4R,5S)-4-amino-5-methyl-3-[[tris(1-methylethyl)silyl]oxy]heptanoic acid]- (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

PAGE 1-B



REFERENCE COUNT:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> b home

FILE 'HOME' ENTERED AT 17:09:37 ON 21 APR 2004

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